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A NEW SPECIES OF GALIUM (RUBIACEAE) FROM COAHUILA

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The following new *Galium* was discovered in connection with work toward a flora of the Chihuahuan Desert, currently in preparation at the University of Texas.

Galium carmenicola Dempster, sp. nov. Herba perennis polygama semiprostrata. Caules foliaque hispida, sed inflorescentiae glabrae. Folia quaterna, ad 6 mm longa, anguste lanceolato-oblanceolata pungentia adscendentia, costa subter prominente. Flores plurse in ramulis brevibus subterminalibus, pedicellis brevissimis. Corollae campanulatae, glabrae, ultra dimidio fissae, segmentis apicibus tenuibus. Fructus sicci pilis crassiusculis aliquantum curvatis obtecti.

Type: Coahuila, Mina El Popo, ca 2 km S of Cañon El Diablo on dissected east slope of Sierra del Carmen, on steep slopes of massively-bedded limestone, 1600 m, 29 Jul 1973, *Johnston, Chiang, Wendt, and Riskind 11921.* Holotype: UC! (1400211); isotypes: MEXU, TEX.

Galium carmenicola is a slender, trailing, moderately congested, somewhat pungent plant. Flowers and fruits are very small, the corollas clearly and broadly campanulate, of a pale color (perhaps pink), the lobes reflexed. Fruits on the type specimen are few, most of the flowers apparently having been staminate, with small sterile ovaries and obsolete styles and stigmas. Pistillate flowers were not seen, and their styles and stigmas are therefore unknown. The fruits have stoutish hairs about one-fourth to one-third as long as the diameter of the fruit. Since the distinction between *Galium* species with uncinate fruit hairs and those with straight fruit hairs or none is generally a sharp and reliable means of separating species groups, *G. carmenicola* is disturbing, with most fruit

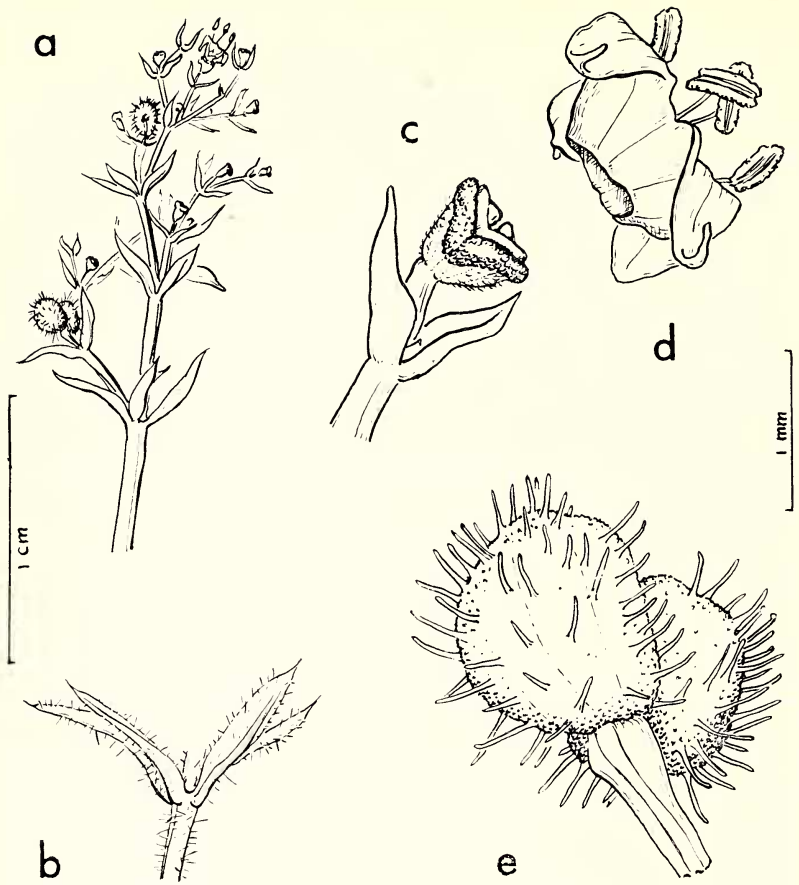

FIG. 1. *Galium carmenicola*. a, fertile branchlet with two fruits, one staminate flower, and eight sterile ovaries from which the corollas have fallen; b, node, showing leaves and indument; c, sterile ovary, pedicel, and subtending bracts of staminate flower; d, corolla and stamens of same; e, mature fruit.

hairs "straight" or somewhat curved, but a few so curved at the tip as to be necessarily described as uncinate, or at least uncinulate. Species that have uncinate fruit hairs (*G. aparine* L., *G. uncinulatum* DC., *G. proliferum* Gray, and many others) are usually unambivalent in this respect. Their fruit hairs are straight until the tip, which is suddenly hooked. On the other hand, although sect. *Lophogalium* Schum. is characterized by fruit hairs that are straight and not hooked, there are several species that must be included therein by reason of their obviously close relationship, but whose fruit hairs are clearly curved, rather than straight. Examples are *G. jepsonii* Hil. & How., *G. buxifolium* Greene, and many individuals of *G. fendleri* Gray. Apparently *G. carmenicola* belongs to this small group of aberrant members of the sect. *Lophogalium*.

I thank Rimo Bacigalupi for checking the Latin.